

## The DAIRY



### SELECTING SIRE FOR DAIRY

Breeds Standing at the Front in This Country Are Holstein, Jersey, Guernsey and Ayrshire.

In choosing the sire choose one from any dairy breed which may be preferred. The straight dairy breeds that stand in the front in this country are the Holstein, Jersey, Ayrshire and Guernsey. There are other good dairy breeds but these are the four oldest and best of all. The choice being made don't change the breed from which the sire is chosen, and exercise great care in choosing the sire.

The individual points of a good dairy sire cannot be given in detail here, but two of these will be mentioned, because they are in a sense, indispensable. The first is the evidence of much stamina and bodily vigor. The second is, an amplitude of soft skin



Splendid Type for Head of Dairy Herd.

on the underline in front of the testicles. Distinctly traceable milk veins and miniature teats of good size and wide spacing. The performance of the saquey of the bull should be commended. The more good performers in the upward line of ancestry the better. Good performance on the part of ancestral dams means the giving of large quantities of milk rich in quality and persistence in milk giving for a long period.

The successive sires should be chosen from the same breed. If chosen from another breed disturbing factors are inevitable. This may not be apparent at the first, but it will later. The antagonism likely to result cannot be explained here. By adhering to this line of breeding the improvement should be rapid and continuous at least for several generations, but the improvement will be less noticeable with each succeeding generation.

### CEMENT FLOORS FOR STABLE

Gutters Should Be Laid First With Slight Fall at One End—Use Wooden Trowel for Finishing.

When laying cement floors, gutters should be laid first with a slight fall to one end. These should be 4 to 6 inches deep and 15 to 18 inches wide. The distance from gutter to stallion should be about 4 feet 6 inches for ordinary cows. Large cows may need 4 feet 10 inches or 5 feet, while small heifers require only a 4-foot stall.

The floor should slope to the gutter from each side. The passage behind the cows should be at least 8 feet wide to allow cows to pass without crowding. The floor should be finished with a wooden trowel rather than a steel one, as the latter makes a smooth, slippery finish that when wet is very difficult for the cows to walk on safely.

If drains are to be laid to carry off the liquid manure or the water used in washing the floors, they must be put in before the floor is laid.

### TEST ALL THE DAIRY COWS

Wise Move for Farmer to Send Unprofitable Animals to Butcher—Many Are Mere "Boarders."

If a cow is not well qualified for dairy purposes it does not pay to keep her for dairy purposes. There is economy in testing all the members of dairy herds and sending the unprofitable cows to the butcher.

Farmers in San Joaquin county, Cal., have organized for this purpose. Farm Adviser Lyons, who is directing the efforts of the organization, says: "The movement is one that means a great saving to farmers, and it is bound to spread over the entire state. It will probably be found that 20 and 25 per cent of the cows in the average herd are not paying for their keep. The dairyman will make money by selling these cows for beef."

#### Vaseline is Beneficial.

Milkers who have difficulty milking dry should rub a little vaseline on their hands. This practice is not a filthy one, as wetting the teats, but has a beneficial effect upon them.

#### No Best Dairy Breed.

No dairy breed has a monopoly on all the good dairy cows. With the present high development of the various breed associations all the breeds have excellent stock.

## WHERE LIES PROFIT IN POULTRY RAISING



The Original Incubator.

By W. A. J. WILDERLY  
In order to make as great profit as possible, the poultryman should be economical in the production as well as good in the marketing of eggs and poultry.

The farmer has a great advantage over the poultryman who has all the feed to buy and we must not forget to make the best use possible of this advantage.

Grain and charcoal can be found and made on the farm and the expense of buying these necessary things can be saved. If there is a creek bed near, land gravel from that and place near the henhouses where the poultry can find it. Charcoal can be made by taking the live coals from the stove and pouring water over them. They will immediately turn to charcoal and can be ground or broken up into the right size for the chickens to swallow. Better do this work out of doors as steam and ashes will fly from the coals when the water is poured on them.

In these ways we can greatly reduce the cost of keeping our poultry and it will pay us to take the time and thought to our work as the profit in the poultry business, as in any other, lies between the cost of production and the amount received for the marketed products.

Besides comfortable quarters, the chicks, to thrive, must have exercise, water, grit, a variety of grain food, green or succulent food, and calcium or meat foods.

Exercise is as essential as food, and lack of it indicates wrong methods of rearing. The natural way for a chick to take its food is to scratch for it, taking a little at a time. If small chickens are put into a box with a bare floor and fed from a trough, they will become weak. Many will become clogged behind with the excrement accumulating on the down, and it is generally concluded that something

has been fed to cause bowed trouble. As a matter of fact they are weak from lack of exercise, and the appearance of diarrhea is only the inability of the chick to properly expel its excrement.

If chicks cannot be out of doors their feeding floor should be covered with sand, and over this should be thrown some litter, such as chaff from the straw stack or leaves from an alfalfa lot. Place the feed in this litter. If small quantities are thus given, and given often, the question of exercise is solved. Brooder chicks need more care in this way than do chicks with hens, but even in the latter case it is worth while to make them scratch for their food when they are raised indoors.

The notion is prevalent that a chick should begin his diet on boiled eggs, bread and milk, or some other soft food. This notion has probably arisen from the knowledge that most young animals cannot digest hard foods. But when we consider the fact that the natural food of the young mammal is milk, we see why this principle does not apply to chickens.

Little chicks should be first fed when seventy-two to ninety-six hours old. Feed small quantities and as often as is convenient. If the feed is buried in deep litter they must work longer getting it out. The idea is to have them always hungry enough to hunt for food, and always a little food for them to find. If the chicks are at liberty, feeding often is not so important—three times a day would be sufficient; while if they roam far in the fields, feeding much food, morning and evening feeding is all that is necessary. It is not a matter of great importance just what grain a chicken is first fed. The important thing is that they be supplied with a variety of grain as with casein or meat, grit and green food.

### MAKING MONEY WITH DUCKS

Poult Cannot Live Under Burning Sun—It Must Have Shade and Water—What to Feed Them.

There is money in ducks, and you can hatch them in an incubator and every one will hatch, but few people know how to raise or hatch them properly. Too many begin and then give up before they learn how. Successful duck breeders will not average losing two in one hundred. Many people ask: "Why do my ducks get diarrhea, why are they dropping dead?" If a duck gets diarrhea you are not feeding right; if they are dropping dead you are neglecting something that should be in its feed—not enough grass, meat, water, or sand. If it drops dead you have let it get worms somewhere, eating throat worms, or stuffed on too dry cornmeal, or let it get sunstruck. A duck cannot live under a burning sun; it must have shade and water.



Runner Ducks.

After the ducklings have dried off in the incubator, and are from twenty-four to thirty-six hours old, they are placed in the brooder and may be given their first meal, which is the same as the regular rations they are to receive afterwards. This consists of a brown mash made of two-thirds bran or coarse middlings, and one-third cornmeal by weight, mixed with cold water or skim milk.

After the first four days the feed consists of cornmeal and bran or coarse middlings of equal parts, and one pound in twenty of beef scraps. The amount of beef scraps is increased until at eight weeks' old they get about one-eighth. A little sharp sand or chick grit is also mixed with the mash.

Ducks intended for market at ten

weeks of age are not given green stuff, but are fed 8 to 10 times a day all the mash they will eat clean in 15 minutes. Then the feeding boards are removed and cleaned for another meal.

### FOOD FOR LITTLE CHICKENS

Skim Milk is Especially Valuable for Young Poultry During Hot Weather—Tests at Purdue.

About ten or twelve years ago the Purdue university station made an experiment of two lots of chicks, the food, care and treatment of the two lots being identical except that lot two received in addition to the food given lot one all the skim milk they would drink.

In the beginning of the test the combined weight of lot one was 121 ounces. In two months lot one weighed 297.5; lot two 476.5 ounces. The average gain per chick in that time was: Lot one, 2.75; lot two, 1.95 ounces.

This showed that if skim milk be added to the ration fed to young chickens it will increase the consumption of the other foods given. The great increase in average gain was coincident with the period when the greatest amount of skim milk was consumed.

Skim milk is especially valuable as a food for young chickens during the hot weather and becomes of less importance as the chickens grow older and the weather becomes cooler.

### POULTRY RETURNS ARE LARGE

Two Hundred Chickens Should Bring From \$100 to \$150, While Calf Will Clear About \$20.

Poultry will return greater profit than all other live stock on the farm. You will feed a calf a couple of years, and over the feed put into it will clear, it may be, \$20. Turn 200 chicks out on range with a little grain ration morning and night and in six months the 200 chicks or 50 to bring from \$100 to \$150 if sold on a city market at 15 cents a pound; less, of course, if sold to the country trade. But see the difference? It isn't raise more beef; it is raise more chickens.

#### Keep Hopper Full.

Keep the hopper full of dry mash all of the time. This gives the chickens an opportunity to balance the grain rations fed.



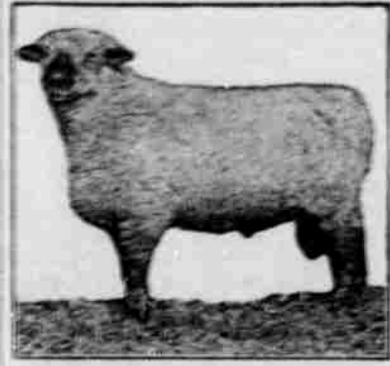
### USE CARE IN LAMB FEEDING

Change From Grass to Alfalfa, Corn, Barley, Ensilage, Etc., Must Be Made Gradually.

By GEORGE H. CLOVER, Colorado Experiment Station.

A small percentage of loss in lambs in the feed lots is to be expected, but this loss in some instances is far greater than it should be. When range lambs are placed on a fattening ration the change of feed is so sudden that certain disturbances cause a general disorder and several dead sheep are found in the pens each morning. This invariably leads to the suspicion that they are dying of some infectious disease.

In some cases the ration is not well balanced to secure the best gains and



Wool and Mutton Type.

the conditions of care and handling might be better, but these things will account for only a nominal loss.

The change from grass to alfalfa, corn, barley, molasses and straw, ensilage, etc., must be made gradually and herein lies the secret of the heavy losses of lambs in the feed lots in the early fall. The desire to get the lambs on a fattening ration as early as possible and failing to appreciate the danger of too heavy feeding and change of ration has helped to make lamb feeding an unprofitable business in some instances. A sudden change of feed, or overfeeding, must be guarded against in the domestic animals, especially in this true with the horse and sheep.

### FIGHTING WORMS IN SHEEP

Internal Parasites, Next to Dogs, Are Greatest Detriment to Animals—Change Pastures Often.

Next to dogs internal parasites are the greatest detriment to the farm sheep business. The trouble seems to be aggravated by pasturing sheep year after year on the same ground. The best cure is prevention and the practical way of prevention is changing pastures as frequently as possible.

Scrawny, unthrifty lambs will usually be found suffering from intestinal worms, providing, of course, feed conditions are such that they normally should be in good shape. Gasoline is the best treatment.

Mix well one-quarter ounce gasoline in three ounces sweet milk and drench each lamb for three mornings in succession. Before the first treatment put them in a pen and give them no feed nor water for 18 hours. Repeat the treatment again in three weeks. Be careful not to let the lamb strangle, and draw the mixture into the lungs.

### HOW HOG CHOLERA SPREADS

Story Appears in Little Leaflet Recently Issued by Experts of the Iowa State College.

How hog cholera spreads is less of a mystery than it used to be, due to careful investigations by the experts. The exact way is told in a little leaflet recently issued by the agricultural extension department of Iowa State college. The story appears in the following table, based on a study of 389 farms in a cholera district:

Visiting neighbors, exchanging hogs, etc.	Per cent.
Infected by dogs	15.5
Infected by hogs	25.5
Previously infected premises	25.5
Feeding hogs	15.5
Infected by birds	25.5
Contaminated streams	25.5
Purchasing new stock	25.5

#### Feeding for Beef.

With silage as an important part of the feed of beef cattle best gains are made at least cost. The old-time hay and grain ration is too costly for the narrow margins on which the feeder must operate and the only way to insure a profit is to buy his cattle as cheaply as possible, then cheapen the ration with silage and cottonseed meal.

#### Good Shepherd Watches.

Sometimes a good ewe is lost, or her udder nearly ruined, because the lamb, a little weakly, sucks but one teat. The other soon becomes so full and hard it cannot get at it, or so sore and sensitive the ewe will not let it be touched. A good shepherd keeps an eye open for such cases.

### AIR NEEDED IN ICE BOX

Provision for Proper Circulation is as Much a Necessity as Supply of Cooling Material.

It is astonishing how little the average housekeeper knows about ice. Some women seem to think all there is about ice is to have the meat put in the refrigerator. Others, more careful, think to save the ice bill by putting some kind of covering over the ice.

True, the ice does not melt so quickly with the cover, but then again, since it does not melt, it has no cooling effect. Unless ice melts it is useless. The faster it melts the colder the food becomes.

The most important feature of a good refrigerator is ample facility for a free circulation of air when the box is closed. Cool air, being heavier than warm air, sinks. The warm air rises. For this reason the coldest place in the refrigerator is the bottom and not the ice chamber, as so many people think it is and consequently often put butter or milk directly in with the ice.

There must be suitable passages to allow the warm air rising from the things placed in the refrigerator to flow to and over the ice at the top, and for this same air when cooled and purified by the melting ice, to return into the food chamber.

The circulation continues until the temperature is equalized. While this circulation proceeds the ice melts rapidly, but when the temperature is once equalized the ice melts very slowly, that is, if the door is kept tight. It will pay in the end to keep the ice compartment well supplied with ice. It should never be less than one-quarter full. The ice melts faster, and with less cooling effect, when the supply is low.

### KITCHEN HINTS OF MOMENT

Proper Receptacles for the Preservation of Food—Meat When Roasting Should Be Kept Covered.

Everybody does not know that food in general should not be allowed to cool in tin, copper or iron. It must be placed, while hot in agate, china or well glazed earthen ware.

Green vegetables should be dropped into boiling water to which a pinch of bicarbonate of soda has been added. Put in salt when the article is half cooked.

If you have covered a pan in which meat is to be roasted never open it to taste the meat. Keep it covered from start to finish. The idea is that the pan is filled with steam, which penetrates the fibers of the meat. If desired to brown the outside leave the cover off for the first half hour in a quick oven.

The shank bones of mutton, of an little general value, if well soaked add to the richness of gravies and soup stock.

When boiling haricot beans or dried limas do not put in the salt until they are nearly cooked, otherwise they are apt to split and come out of their skins. They should be brought to the boiling point, that water poured off and fresh boiling water poured over them.

#### Whipping Cream Should Be Cold.

Often the housewife finds that the cream she has will not whip. The department's dairy specialists point out that to obtain satisfactory results in whipping cream it should be cold and of the right thickness, containing about 35 per cent or more of butterfat. Ordinary cream, designated as coffee cream by the trade, is altogether too thin to give good results. The whipping cream, as delivered by the milkman, contains 30 to 40 per cent of butterfat. Thoroughly chill the cream before whipping by placing it in a covered bowl on the ice. The whipping process is also aided and hastened by standing the bowl in a pan of ice water.

#### Scotch Broth.

Three pounds neck mutton, two tablespoonfuls pearl barley, two tablespoonfuls minced onion, two tablespoonfuls minced turnip, two tablespoonfuls minced carrot, two tablespoonfuls minced celery, two tablespoonfuls salt, one teaspoonful pepper, one tablespoonful minced parsley, three quarts cold water. Remove bones and fat from mutton, cut meat small and place with vegetables and seasoning, except parsley. Simmer three hours after coming to a boil, then thicken with flour and add parsley.

#### Beef Tea Meat.

Remove all gristle and fat from meat intended for beef tea. Place these trimmings in a pan with sufficient water to cover them, and add any vegetable to hand cut up small. Allow to simmer, then add the meat from the beef tea. Simmer for four hours, then strain through a hair sieve and pour the liquid into a mold to set. When cold it will be a nourishing jelly, suitable for invalids. The vegetable used must be quite fresh.

#### Paint Flower Pots.

Instead of buying expensive jardinières for your plants, paint the ordinary flower pots and saucers with an oil paint to harmonize with the color scheme of the room. Have pots painted a soft leaf green, or Chinese blues are very quaint and decorative.

#### To Prevent Gas Stove Sweating.

If you are careful to leave the door of your gas range open after using, it will allow the heat to escape and prevent the sweating of the metal, which leads to rust.



### PROPER CARE OF HEN YARDS

Fowl Should Have Abundant Supply of Water—Feed Liberally of All Kinds of Green Stuff.

A hen's body and a hen's egg is composed to a large extent of water, therefore a hen should have abundance of water, either in the clear state or through green vegetable matter. Have the vessels clean and give freshly pumped well water twice a day.

When the hen pasture is eaten off close remove them to fresh pasture. Spread a thick coat of fresh air-slacked lime over the first pasture to kill the bacteria that may be present and to sweeten the soil. Lime is one of the best and cheapest disinfectants we can use. Oyster-shell lime at the kiln may be had for five cents per bushel, and when air-slacked one bushel will make two bushels. Use lime freely in the yards, and in the house at least once a week. Have plenty of crushed oyster shells and grit in the feeding room.

Hens confined in small yards should have a part of the yard spaded up at least once a week and then limed. Give an abundance of freshly cut clover, cabbage leaves, lettuce and grass. No refuse matter should be allowed to remain in the yard, as it is liable to produce disease among the hens. Chickens should not be kept in the same yard with hens. Have slatted feeding coops. Feed the chickens in the coops, so they can get their full share of feed. These coops can be quickly made of laths—being light they can easily be moved from place to place—and will be found a great convenience, especially where the hen has a brood of young chickens.

Chickens and grown fowls suffer from the heat. Shade of some kind must be provided if there is no natural shade. Make a low shed of poles and cover the poles with brush. Grass range saves feed and is best for the hen's life. Hens pick up a large part of their living in the summer in the fields.

### LOOKING AFTER LATE POULTS

Birds Are Sure to Bring in Good Returns If Properly Managed—Shade is Absolutely Necessary.

The July and August hatched poult are well worth looking after. For they are sure to bring in good returns if properly managed. The turkey hen whose early brood meets with disaster or who has been repeatedly broken up often lays out and now brings up all the way from two to a dozen little ones.

Do not think they are too late to amount to anything and therefore ignore them or leave them to shift for themselves, but give them the same care you did the early flocks. As the weather is apt to be quite hot from



The King of Birds.

now on for a few weeks it is quite important that some shade be provided to protect them from the mid-day sun, says a Kansas writer in Farm Progress. For young turkeys simply cannot survive its ravages.

I found this out to my sorrow a few years ago. Our shade trees were a minus quantity, so the little fellows had been used to hiding in the alfalfa. That morning the mowers were busy in the fields and after dinner, when the men went out, they found a number of my turks lying limp and lifeless in the path. They had simply "keeled over" dead from heat and exhaustion. That taught us a lesson.

If the hen can have the run of a grove or orchard with her little ones she is safe on that score. But if there is not any natural protection, artificial shade should be provided.

#### Gather the Turkey Eggs.

A good turkey hen will usually lay more eggs than she can comfortably cover; it is therefore advisable to gather the eggs as they are laid and when the hen desires to set give her 12 or 15 of the last laid eggs.

#### Waste Feed on Roosters.

About nine out of every ten farmers must plead guilty to wasting feed on too many roosters from now on. This also adds to the egg losses through their being fertile and thus quicker to deteriorate.